

Please add the following new claim:

11. A method of making a dispersion comprising dispersing the hydrophobic, pyrogenically produced silica of Claim 1 in an organic solvent herewith.

**REMARKS**

Reconsideration is respectfully requested of the Official Action of February 14, 2002, relating to the above-identified application.

A three-month extension of time, together with the associated fees, is filed herewith.

The specification has been amended in accordance the objections raised by the Examiner on page 2 of the Official Action. Applicants believe that with entry of the amendments to the specification, all the objections have been overcome.

Claim 4 has been amended to be dependent on Claim 1 and, therefore, it is believed that Claim 4 complies with 35 U.S.C. § 112.

Claim 9 has been deleted and rewritten as new Claim 11, which is believed to comply with 35 U.S.C. § 101 and § 112. Basis for new Claim 11 is found in the application on page 9, first paragraph.

The rejection of Claims 1, 2 and 5-10 under 35 U.S.C. § 102(b) as anticipated by *Kling*, *et al.*, U.S. 4, 877,595 is traversed and reconsideration is respectfully requested. The cited U.S. patent corresponds, as noted in the Official Action, to the European patent document mentioned in this application on pages 1 and 2. As noted in the Official Action, the *Kling* patent discloses Aerosil R 972 which is a product of the assignee of this application, Degussa AG. This product is made hydrophobic by treatment with dimethyldioxsilane.

*Klinge*, however, does not disclose a pyrogenic silica which has been rendered hydrophobic by reaction with a halogen-free silane as now specified in Claim 1. Accordingly, the *Klinge* patent fails as a proper reference under 35 U.S.C. § 102(b). As pointed out by the MPEP, Section 2131, to anticipate a claim, the reference must teach every element of the claim. The identical invention must be shown in as complete detail as is contained in the claim. Since the reference is missing the feature of being rendered hydrophobic using a non-halogenated silane, the reference is considered to be improper and the rejection based thereon should be withdrawn.

The rejection of Claims 1, 2, 4, 8 and 10 under 35 U.S.C. § 102(b) as anticipated by *Deusser, et al.*, U.S. 5,429,873, is traversed and reconsideration is respectfully requested. *Deusser*, also assigned to the same assignee as the present application, Degussa AG, discloses surface modified pyrogenically produced silica. The silica is treated by spraying it with a fluorinated compound as shown in the Abstract. Consequently, the silanes that are used in *Deusser* for the modification of silica are not halogen free. It is, therefore, clear that *Deusser* does not anticipate the claimed invention which requires the use of a halogen-free silane for the surface modification of the pyrogenically produced silica.

The rejection of Claims 1, 2, 4, 8 and 10 under 35 U.S.C. § 102(b) as anticipated by *Burger*, U.S. 4,680,173, is traversed and reconsideration is respectfully requested. The Official Action notes that *Burger* discloses silicas and aerosol dispersions of the silicas. The discussion of the type of silica which is hydrophobic is found in column 10, beginning at line 33. A number of typical silica products are identified in column 10, beginning at line 49. These materials are also

identified in column 2, beginning at line 50, and it should be noted that they are precipitated silicas, not pyrogenically produced silica as required by Claim 1. Consequently, applicants submit that the *Burger* patent does not describe hydrophobic pyrogenically produced silica having a tamped density of 55 – 200 gms per liter and which is hydrophobicized by reaction with a halogen free silane. Accordingly, applicants respectfully submit that *Burger* does not describe the presently claimed invention and, therefore, the rejections based thereon should be withdrawn.

The rejection of Claims 1-5 and 8-10 under 35 U.S.C. § 102(b) as anticipated by the Degussa European patent, EP 0808880 A2, is traversed and reconsideration is respectfully requested. The Degussa reference, also corresponding to U.S. patent 5,959,005, describes silica which is produced by spraying the silica first with water and then with a surface modifying reagent, then mixing, tempering, and subsequently destructuring by compressing and grinding. The silicas of the present invention are not destructured by any mechanical action and, therefore, distinguish from the silica shown in the reference.

Since the Degussa reference (*Hartmann*) does not show a silica which has not been destructured, applicants respectfully submit that the reference does not describe the claimed subject matter within the meaning of 35 U.S.C. § 102(b).

The rejection of Claims 6 and 7 under 35 U.S.C. § 103(a) as unpatentable over the Degussa EP 0808880 A2, further in view of the *Klinge* patent, U.S. 4,877,595, is traversed and reconsideration is respectfully requested. Claims 6 and 7 are directed to the process of Claim 5 where the compacting is carried out by roller compactor and belt filter press, respectively. Since Claims 6 and 7 depend on Claim 5, it should be noted that Claim 5 depends on Claim 1 which in

turn recites that the silica has been produced by reaction with a halogen free silane to render it hydrophobic.

The *Klinge* patent has already been demonstrated to be related to a halogenated silane treatment and, therefore, does not teach or suggest to one skilled in the art to use the halogen free silane for this hydrophobic treatment of pyrogenically produced silica.

As is known in the art, the manner in which the silica is treated by way of mechanical action or other type of compacting action dramatically affects the nature of the final product. Hence, the teaching in the Degussa patent is to use a mechanical action such as a ball mill followed by grinding in an air jet mill or a pinned disk mill. See, *Hartmann*, column 1, lines 35-39. No disclosure is found in the cited reference of using a roller compactor or a belt filter press.

As is well known in the art, substitution of different compacting means is not something that can be carried out with the expectation of obtaining comparable results. Consequently, applicants respectfully submit that there is insufficient basis to allege that a person skilled in the art would be lead to substitute a roller compactor or a belt filter press for the mechanical action described in the Degussa patent. Accordingly, it is respectfully submitted that the rejection is not properly founded on the prior art teachings and, therefore, should be withdrawn.

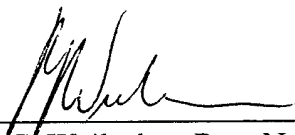
Application No. 09/740,039  
Attorney Docket No. 032301.090

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In view of the foregoing, applicants request favorable action at the Examiner's earliest convenience.

Respectfully submitted,

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Version with Markings to Show Changes Made

**Amendments in the Specification**

In accordance with 37 C.F.R. § 1.121(c) [verify re spec] the following version of the specification as rewritten by the foregoing amendment shows all the changes made relative to the previous version of the specification.

It is known to compact hydrophilic, pyrogenically produced silica [(EP 0 280 854 B1)] (EP 0 280 851 B1). Disadvantageously, as tamped or bulk density increases, thickening action declines in a linear manner. Dispersibility also falls as density increases. This results in unwanted speckling. Thus, once compacted, a hydrophilic, pyrogenically produced silica may only be used for a limited number of applications.

Application No. 09/740,039  
Attorney Docket No. 032301.090

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Version with Markings to Show Changes Made  
**Amendments in the Claims**

In accordance with 37 C.F.R. § 1.121(c) the following version of the claims as rewritten by the foregoing amendment shows all the changes made relative to the previous version of the claims.

Claims 3 and 9 have been deleted.

New Claim 11 is added.

LIT/770145.1